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THE ATTITUDE OF SECONDARY LEVEL SCHOOL TEACHERS OF DHEMAJI DISTRICT TOWARDS ENVIRONMENTAL EDUCATION

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ABSTRACT

Our environment is threatened due to many hazards like air, water, noise and soil pollution. There is a great need to protect and preserve the environment. In order to faster the awareness towards environment, it is necessary to know that levels of awareness they possess in their areas and as such there are limited numbers who have taken up research in the said field and hence the study. School system provides largest organized base for environmental education and action. Teacher is one of the important factors which is bound to affect this programme. There was a conception prevalent in the society that the urban people are more aware about their environment than the rural people. But the present study nullifies this concept. For this study, 100 samples taken randomly from 10 urban and rural secondary schools of Dhemaji district. It reveals that there is no significant difference in the environmental awareness attitude Mean scores among the rural and urban secondary school teachers of Dhemaji district. On the other hand, it was found that male teachers exhibited better environmental attitude than the female school teachers of Dhemaji district.

KEY WORDS: Environment, Hazards, Pollution, awareness attitude, Dhemaji.

INTRODUCTION:

Our environment is continuously deteriorating and now it becomes serious concern of the world. Everything which surrounds us is referred as the environment. The air, water, soil all living and non-living things around us constitutes a life support system. So it is our foremost duty to conserve our environment resources. The ultimate goal of environment education whether it is formal or non formal is to create awareness among the citizens of a country. In formal system of education, teachers can play an important role in educating their students about environment related issues, which is possible only when the teachers themselves have mastery over environmental awareness. It is hypothesized that teachers do differ in their levels of environmental awareness and demographic variables like gender, age and school type will have significant influence on levels of environmental awareness. Global concern regarding the steadily deteriorating state of the environment has emphasized the need of environmental education is a way of creating knowledge understanding values, attitude, skills, abilities and awareness among individuals and social groups towards the environment protection. Environmental education is an attempt to reorient education

so that environmental competence is restored as one of its basic aims along with personal and social competence. The goal of environmental education is to develop a world population that is aware of and concerned about the environment and its associated problems, who has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively towards solution of current environmental problems and prevention of new ones. School system provides largest organized base for environmental education and action. It differs effective instrument for embedding in them the desirable environmental ethics. Teacher is one of the important factors, which is bound to affect this programme. Teachers can provide a vital link in the delivery of environmental knowledge, it's associated problems and their solution. Taking into consideration this situation, the investigator felt a need to conduct a study to examine how much the environmental education and attitudes are imbibed among the school teachers. Very few works have been carried out to study on environmental awareness and attitude of students and teachers in the secondary school levels. However Kapoor (2000), Lenka (2005), Patel and Patel (1994), Verma(2006) and Sing (2008) have some important work in this line. The need of environmental awareness among the higher secondary students has an immense importance in the present situation (Sundararajan and Rasasekar 1993). Vernal (2006) worked detail on Pedagogy in environmental education.

The objectives of the present study are as under:

(i) To study the attitude of secondary level school teachers of Dhemaji district towards environmental education in terms of sex.

(ii) To study the attitude of secondary level school teachers of Dhemaji district towards environmental education in terms of locality.

Hypotheses of the study:

The following hypotheses have been formulated in view of the objectives of the study:

H1: There is no significant difference between the level of attitude of the male and female secondary level school teachers of Dhemaji district towards environmental education.

H2: There is no significant difference between the level of attitude of the rural and urban secondary level school teachers of Dhemaji district towards environmental education .

Delimitation of the study:

The study has been delimited to:

- Secondary school teachers of five blocks namely Dhemaji, Gugamukh, Silapathar, Machkhua, and Jonai blocks of Dhemaji district.
- Attitude of teachers towards environmental awareness and environmental education.
- The variables like sex and locality of secondary level school teachers.

Methodology:

In view of the objectives of the present study, the investigator has adopted the descriptive survey method:

(A) Selection of sample (B) Selection of tools (C) Administration of tools
(D) Scoring procedure

(A) In the present study, a sample of 100 teachers were selected by adopting the random sampling technique from secondary level schools of Dhemaji district. Equal representation has been ensured for sex and locality in the teachers sample.

The distribution of sample is shown in the table -1

Table -1 DISTRIBUTION OF THE SAMPLE OF TEACHERS

Category	TEACHERS			
Sample	100			
Sex	Male (50)		Female (50)	
Locality	Rural (25)	Urban (25)	Rural (25)	Urban (25)

B) Selections of Tools:

The following tools are developed and used for the present study:

Attitude Scale for Secondary Level School Teachers:

- A Five-point attitude scale was constructed by adopting the step given by Likert (1932) and standardized to measure the attitude of Secondary Level School Teachers towards the environmental education.
- **Collection and Editing of Statements:** The investigator developed 55 statements consisting of opinion towards the environmental education. All the statements got edited by the subject and language experts of three each of both the categories since it is described as a criteria by Thurston and Chave (1929), Wang (1932), Bird (1940), Edwards and Kilpatrick (1948). After the completion of the editing, 50 statements were retained in the preliminary draft of this attitude scale.

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☑ **Try out:** The preliminary draft of 50 statements was administered to a sample of 30 teachers of secondary level. Each statement, in this attitude scale was followed by five responses such as SA, A, U, D, and SD. The respondent was to put the tick ☑ mark on any one option as per his/her willingness. The meaning of SA, A, U, D and SD are given as under:-

SA = strongly agree, A = Agree, U = Undecided, D = Disagree, SD= strongly disagree.

The weightage for positive statements was given 5, 4, 3, 2 and 1 points to SA, A, U, D and SD respectively. The total of all the 50 statements was considered the score of teachers on this attitude scale. The minimum score of a teacher on this attitude scale could be 50 (50x1=50), whereas the maximum score on this attitude scale could be 250 (50x5 = 250).

- **Preparation of Final Draft:** The preliminary draft of 50 statements was administered on a sample of 30 teachers, where 15 males and 15 females from secondary schools which was under consideration in this study. The scoring work was done as per the weightage, which has been reflected in the previous step. As per the procedure upper 25 percent and 25 percent lower cases in terms of attitude score were taken to compute the 't' value of 50 statements. The 't' value of 45 statements were found greater than 1.75 therefore 45 statements were retained in the final draft of the attitude scale which measuring the attitude of secondary level school teachers.

- **Reliability and Validity:** For computing the reliability of the attitude scale, the investigator used the 'Test – Re- Test' method. The co-efficient of reliability came out to be 0.95, which indicates a quite high amount of reliability of the constructed scale. The content validity was ensured by making used of the opinions of the content experts. All the teachers attempted the attitude scale with full care and interest.

(C) Administration of Tools

After having the completion of selection of sample and preparation of data gathering tools, the next step is to proceed for collecting data. The investigator as a first step of his research study established contacts with the principals/headmasters of the selected secondary schools in order to get effective cooperation and smooth conducting of the research study. With the approval from the principal/headmasters concerned the investigator visited the selected schools for collecting data from the secondary level teachers.

For administrating the scales, the investigator took every care so that the teachers are not to find any difficulty in attempting the tools of the study. Environmental attitude scale were administered on the teachers. The investigator visited the selected schools personally.

After that teachers were given instructions about the environmental attitude scale to measure their attitude towards environmental education. Each aspect of the environmental attitude scale was explained with some examples. When the teachers were found ready to attend the test they were requested to give their responses.

(D) Scoring Procedure :

- **Attitude scale of teachers:** There are 45 items in the scale. The weightage for positive statements was given 5,4,3,2 and 1 points to SA,A,U,D and SD respectively. The minimum score of a teacher on this attitude scale could be 45(45 x 1=45), where as the maximum score on this attitude scale could be 225(45 x 5=225).

ANALYSIS AND INTERPRETATION OF RESULT

The present study has been devoted to analysis and interpretation of results. The stock data does not stand for anything until or unless it is tabulated, organized, analyzed and interpreted. The research plan reflects the description of statistical technique(s) to be used for the analysis and interpretation of the data. The main objectives of the present study are to assess and compare the attitude of secondary level school teachers of Dhemaji district towards environmental education. For this purpose, the investigator used the measures of central tendency, variability and t-test.

Calculation for the Mean, Standard Deviation and T-value:

Objectives: To Assess the Environmental Attitude among the Male Teachers and Female Teachers of Secondary Level of Dhemaji district.

Hypothesis: There is no statistically significant difference between the Environmental Attitude scores of Male Teachers and Female Teachers of Secondary Level of Dhemaji district.

Table - 2: Computation of Mean and SD of Environmental Attitude scores of Secondary level Male Teachers of Dhemaji district

Class Intervals	Frequencies	x/	*f*x/	*f*x/2
111-120	4	2	8	64
101-110	12	1	12	144
91-100	16	0	0	0
81-90	8	-1	-8	64
71-80	4	-2	-8	64
61-70	2	-3	-6	75 36
51-60	2	-4	-8	64
41-50	2	-5	-10	100
	N=50		$\sum$*f*x/ = -20	$\sum$*f*x/2 = 536

Computation of Mean = 91.5
Computation of SD = 32.2

Table - 3: Computation of Mean and SD of Environmental Attitude scores of the Female Teachers of Dhemaji district

Class Intervals	Frequencies	x/	*f*x/	*f*x/2
111-120	4	3	12	144
101-110	9	2	18	324
91-100	11	1	11	121
81-90	11	0	0	0
71-80	10	-1	-10	100
61-70	2	-2	-4	16
51-60	3	-3	-9	81
41-50	0	-4	0	0
	N=50		$\sum$*f*x/= 18	$\sum$*f*x/2 = 786

Computation of Mean = 89.1
Computation of SD = 39.5

By using the computed mean and standard deviation values of environmental attitude scores of Male Teachers and Female Teachers at Secondary level of Dhemaji District, the t-value was computed below :

t = 0.33

Where df = 98

The table value of 't' for df- 98 is 1.99 at .05 level of significance and 2.63 at .01 level of significance.

Table 4: Summary of Environmental Attitude Mean Scores, SD, and t-value of Male and Female Secondary level School Teachers

Groups	N	Mean Scores	SD	SED	t-value
Male	50	91.5	32.5	7.23	0.33
Female	50	89.1	39.5		

Interpretation: The above Table-4 reveals that the computed t-value 0.33 is smaller than the criterion t-value 1.99 at .05 level of significance for d.f.- 98. As the computed t-value 0.33 is not significant at .05 level, so, the hypothesis is accepted. From this it is understood that there is no significant difference in the environmental attitude Mean Scores of Secondary level Male and Female teachers of Dhemaji district.

Calculation for the Mean, Standard Deviation and T-value:

Objectives: To Assess the Environmental Attitude among the Rural and Urban Teachers of Secondary Level of Dhemaji district.

Hypothesis: There is no statistically significant difference between the Environmental Attitude scores of Rural and Urban Teachers of Dhemaji district.

Table – 5: Computation of Mean and SD of Environmental Attitude scores of Secondary level Rural Teachers of Dhemaji district

Class Intervals	Frequencies	x/	*f*x/	*f*x/2
111-120	4	2	8	64
101-110	13	1	13	169
91-100	15	0	0	0
81-90	9	-1	-9	81
71-80	6	-2	-12	144
61-70	1	-3	-3	9
51-60	1	-4	-4	16
41-50	1	-5	-5	25
	N=50		$\sum f$x/= -12	$\sum f$x/2 = 508

Computation of Mean = 93.1
Computation of SD = 31.7
By using the computed mean and standard deviation values of environmental attitude scores of Rural and Urban Teachers of Dhemaji District, the t-value was computed below.

't' = 0.64
Where df = 98

Table 7: Summary of Environmental Attitude Mean Scores, SD, and t-value of Rural and Urban Secondary level School Teachers

Groups	N	Mean Scores	SD	SED	t-value
Rural	50	88.5	39.8	7.2	0.64
Urban	50	93.1	31.7		

Interpretation: The above Table-7 reveals that the computed t-value 0.64 is smaller than the criterion t-value 1.99 at .05 level of significance for d.f.- 98. As the computed t-value 0.64 is not significant at .05 level, so, the hypothesis is accepted. From this it is understood that there is no significant difference in the environmental attitude Mean Scores of Secondary level Rural and Urban teachers of Dhemaji district.

SUMMARY AND FINDINGS OF THE STUDY:

(A) The findings of Environmental Attitude Test Scores among the Secondary level Male and Female School Teachers of Dhemaji district are as under:

The Table-4 reveals that the computed t-value 0.33 is smaller than the criterion t-value 1.99 at .05 level of significance for d.f.- 98. As the computed t-value 0.33 is not significant at .05 level, the hypothesis is accepted. From this it is understood that there is no significant difference in the environmental attitude Mean Scores of Secondary level Male and Female teachers of Dhemaji district. But Male teachers of Dhemaji district exhibited better environmental attitude than the Female school teachers of Dhemaji district. The mean attitude scores of Male and Female teachers are 91.5 and 89.1, respectively.

(B) The findings of Environmental Attitude Test Scores among the Secondary level Rural and Urban School Teachers of Dhemaji district are as under:

The Table-7 reveals that the computed t-value 0.64 is smaller than the criterion t-value 1.99 at .05 level of significance for d.f.- 98. As the computed t-value 0.64 is not significant at .05 level, the hypothesis is accepted. From this it is understood that there is no significant difference in the environmental attitude Mean Scores of Secondary level Rural and Urban teachers of Dhemaji district.

The table- 7 reveals that the Rural and Urban school teachers of Dhemaji district had exhibited a high amount of environmental attitude as the mean scores of the environmental attitude of Rural and Urban school teachers in Dhemaji district are 88.5 and 93.1 respectively. And Urban teachers of Dhemaji district exhibited better environmental attitude than the rural school teachers of Dhemaji district.

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